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Building Subnational Debt Markets in Developing and Transition Economies

A Framework for Analysis, Policy Reform, and Assistance Strategy

Michel Noel

Because of the trend toward decentralization in more than 70 countries where the World Bank is active, subnational entities — states, regions, provinces, counties, and municipalities, and the local utility companies owned by them — are now responsible for delivering services and investing in infrastructure. And infrastructure investments are growing rapidly to meet increasing urban demand. How should the World Bank Group help?

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Summary findings

Subnational debt markets can be a powerful force in a country's development. Through delegated monitoring by financial intermediaries and through debt placed directly with investors, subnational debt markets account for about 5 percent of GDP in Argentina and Brazil. But they remain embryonic in most developing and transition economies.

To resolve a potential clash between the increased financing needs of subnational entities and the limited development of domestic subnational debt markets, it is critical to support the orderly, efficient emergence of such debt markets.

As a framework for policy reform, the following steps (mirroring typical weaknesses) are prerequisites for developing a country's subnational debt market:

- Reducing moral hazard.
- Improving market transparency.
- Strengthening market governance.
- Establishing a level playing field.
- Developing local capacity for accounting, budgeting, and financial management.

In countries where the government shows a clear commitment to market development, says Noel, the IBRD should support the framework needed for policy-based operations that establish hard budget constraints. In doing so, the IBRD should concentrate on (1) supporting national and local capacity building in those areas essential for developing a subnational debt market and (2) financing specific subnational projects with strictly nonrecourse loans.

At the same time, the World Bank Group should offer a variety of lending and guarantee instruments that encourage private financing for investments by subnational entities — including, for example, equity participation in (or lines of credit or partial credit guarantees to) financial intermediaries specializing in subnational investment finance or in funds for financing local infrastructure.

This paper — a product of the Private and Financial Sectors Development Unit, Europe and Central Asia Region — was prepared as background for a manual on policy issues relating to domestic debt markets. Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Michel Noel, room H6-161, telephone 202-473-2581, fax 202-522-0073, email address mnoel2@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. May 2000. (45 pages)

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Introduction

1. Decentralization is a rapidly expanding trend across developing and transition countries. As a result, in more than seventy countries where the World Bank Group is active, sub-national entities are now responsible for delivering a wide range of local services and for undertaking investments in local infrastructure. These sub-national entities encompass states, regions, provinces, counties, municipalities, as well as local utility companies that are owned and/or regulated by them.

2. As a result of rapid urbanization, local infrastructure investments are growing very rapidly across all Regions. Because of tight fiscal constraints faced by central governments, sub-national entities can rely only partially on capital grants to fund these investments. Instead, they need to raise local resources, improve the efficiency of resource use, increase the participation of the private sector in local services and infrastructure, and access sub-national debt markets to finance these investments.

3. As shown by the experience of OECD countries and of some developing countries, sub-national debt markets can be a powerful force in the development of the domestic debt market. Specifically, sub-national debt markets have shown that they can effectively raise resources from savers, correctly price sub-national credit, and efficiently allocate capital among competing sub-national investments through diversified financing and guarantee products that are tailored to the needs of sub-national borrowers. These products can be structured very flexibly, ranging from instruments secured against the full faith and credit of the sub-national entity, to instruments secured through a specific revenue stream, or a combination of both. Sub-national debt markets can perform their role both through delegated monitoring by financial intermediaries and through direct placement of debt with investors.

4. Yet, while sizeable sub-national debt markets have begun to emerge in such countries as Argentina and Brazil, where they account for about 5 percent of GDP, they remain embryonic in the vast majority of developing and transition countries. The contrast is especially striking in the advanced transition countries of Central Europe, where sub-national debt markets typically remain below 0.5 percent of GDP, despite considerable progress achieved in financial sector restructuring and privatization and in capital market deepening and diversification, and despite the growing demand for local infrastructure investment finance in light of EU accession. As a result, in many developing and transition countries, there is a pending development clash between the rapidly increasing investment financing needs of sub-national entities and the limited development of the domestic sub-national debt market.

5. To resolve this potential development clash, it is critical to enable the emergence of an orderly and efficient sub-national debt market so that it can make its full contribution as an integral part of the development of the domestic debt market. To achieve this, it is important to understand what are the specific features that make sub-national debt markets different from the other segments of the domestic debt market, focusing in particular on the structure of the market, the structure of incentives among market participants, the evolution of market development constraints as part of the development of financial systems, and to understand what are the implications of these specific

features for the design of policy reforms in the structure of incentives for market participants and in the legal, regulatory and institutional environment for the market.

6. The purpose of this paper is three-fold. In Part I, we discuss the policy foundations that are a prerequisite to support the development of orderly and efficient sub-national debt markets. In Part II, we examine the key elements of the architecture required to support the development of sub-national bond markets. Finally, in Part III, we discuss the implications of the analysis for the design of assistance strategies by the World Bank Group to support sub-national debt markets development in developing and transition countries.

Part I: Policy foundations for sub-national debt markets development

7. This Part discusses the design of policies that are required to establish the foundation for the development of orderly and efficient sub-national debt markets in developing and transition countries. Chapter 1 examines the key agency problems that are characteristic of sub-national debt markets. Based on this analysis, Chapter 2 examines the development constraints that are specific of sub-national debt markets. Chapter 3 discusses the evolution of sub-national debt markets as part of the transition from closed to open financial systems. Finally, Chapter 4 presents a policy matrix to guide the design of policy reforms in support of sub-national debt market development under alternative financial systems.

Chapter 1: Agency problems in sub-national debt markets

8. The sub-national finance market is characterized by a basic set of principal-agent relationships between three types of entities: central government, private financial institutions/investors, and sub-national entities (states, regions, provinces, municipalities, and local utility companies that are at least partially owned and/or regulated by them). Among sub-national entities, there is a sub-set of principal/agent relationships between various levels of local governments, and between local governments and local utility companies. This basic set can in turn be extended and understood as part of a more complex set of relationships between (i) citizens acting as principals for both the central government and sub-national entities; (ii) the central government acting both as an agent for its citizens and a principal for sub-national entities and sometimes for lenders; (iii) sub-national entities acting as agents of for both the central government and for their citizens; and (iv) lenders acting as agents for their shareholders (including the government in some cases) and as principals for sub-national entities.

9. Section A focuses on the basic set of principal-agent relationships between the central government. sub-national entities and lenders. Section B briefly discusses the broader set of relationships involving intermediate governments, local utility companies, and citizens as principals for both central and local governments.

Section A: Principal-agent relationships between central government, sub-national entities, and lenders

10. Sub-national debt markets are characterized by a number of specific agency problems. The first agency problem is that of *hidden action*, in which sub-national borrowers as agents may have an incentive not to repay their lenders as principals because they perceive that they will be bailed-out by the central government in case of default, resulting in moral hazard. The second agency problem is that of *hidden information*, in which sub-national borrowers as agents may have an incentive not to reveal certain characteristics about themselves to lenders as principals, resulting in adverse selection. The incidence of both agency problems varies considerably depending on the structure of the sub-national debt market in each country.

(i) Monopolistic sub-national debt markets

11. At one end of the spectrum are countries with a monopolistic sub-national debt market, in which the central government is the sole principal combining the two functions of capital grants allocation and of lending among sub-national entities. This market structure is subject to two sets of agency problems. The first set of problems originates from the relationship between the central government as principal responsible for allocating conditional capital grants among sub-national entities and the latter as agent for undertaking related investments. This relationship is subject to an ex-post *conversion risk*, which results from the possibility that sub-national entities may allocate part of the conditional grant to fund undertakings different from the investment initially targeted by the grant, in the absence of an adequate monitoring mechanism. Note that this ex-post efficiency risk is different from the ex-ante allocation risk resulting from the uneconomic allocation of conditional capital grants, which translates into price distortions on the sub-national finance market (see chapter 2, section D below). The second set of agency problems arises from the relationship between the central government as principal responsible for the centralized allocation of credit among sub-national entities and the latter as agent responsible for diligently undertaking the activity financed by the credit. This relationship is subject to an ex-post *efficiency risk*, which results from the lack of incentive for the sub-national entity to deliver a best effort to undertake the project, itself resulting from the lack of credibility of the threat of non-refinancing under a centralized as opposed to decentralized credit system. These two sets of agency problems contribute to a softening of the budget constraint for sub-national entities, and contribute to moral hazard on the sub-national debt market.

12. Among developing and transition countries, Latvia provides an interesting example of a country that chose to virtually close down an emerging sub-national debt market and revert to a centralized system of credit allocation to municipalities (see Inel 1999, op. cit.). Until the second half of the 1990s, local governments in Latvia had wide powers to borrow from domestic and foreign sources, under a well-structured prudential framework that supported the development of local government borrowing from private banks by providing a significant degree of regulatory clarity. There were no reported cases of defaults or litigations. However, tight fiscal policies, accompanied by a general distrust of the banking sector and an inclination toward a simple and direct control over local government finances, led to an effective ban on commercial borrowing from domestic

banks in 1997. The new legislation required the municipalities to borrow from the Treasury and also subjected local borrowings from international banks and IFIs to the approval and sovereign guarantee from the Ministry of Finance. As a result, private lending to local governments has virtually disappeared, and Treasury lending to local governments, mostly short-term, has increased rapidly.

13. There are several commonly acknowledged costs of this system. Foremost among them is the local governments' loss of autonomy and control over their investment and borrowing decisions. Also, there are signs that a predominantly State system of lending will be unable to meet the needs of the Latvian municipalities in the near future—in terms of volumes, speed, diversity, expertise, and flexibility. The domestic financial markets, today much stronger than when the ban was introduced, could be seen as a better candidate to meet these demands than the government. There is also an efficieny loss due to the de-linkage between domestic savers and local governments as borrowers and the removal of the market pricing mechanism. Perhaps most costly of all is the exposure of the State budget to direct subnational credit risks, which occurs both directly (through the provision of State loans and of explicit State guarantees for external borrowings by municipalities) and indirectly (through the intercept provision, which may under certain conditions be seen as an implicit sovereign guarantee; see chapter 2, A1(i) below). As in many other State-led mechanisms, the Treasury line does not involve a commercial assessment of credit risks, relies on its right to intercept transfers to local governments in case of payment default, and devotes limited time and human resources to loan applications. While there were no arrears so far, the Treasury acknowledges the possibility of arrears in the future.

14. At the same time, the hesitation of the government to allow private sources of credit for local governments may have been rooted in a realistic recognition that the transition to a private, competitive system will require overcoming significant constraints, including limited financial management capacity of some municipalities, lack of stability and predictability of the fiscal decentralization system, lack of transparency and adequate central monitoring capacity, and the presence of channels of moral hazard for banks and for borrowers. As it considers moving from a centralized to an open, competitive system, the government will need to pay a special attention to designing and implementing an adequate legal and regulatory framework for sub-national borrowing in the country.

(ii) Competitive sub-national debt markets

15. At the other end of the spectrum are countries with a fully competitive market, in which the central government as principal fulfills the function of allocation of capital grants among sub-national entities as agents, and in which private financial intermediaries and investors compete as principals for lending to sub-national entities as agents, without any explicit or implicit guarantee from the central government. This market structure is still subject to the same capital grants allocation and conversion risks as mentioned above. However, the moral hazard inherent in the centralized credit system is sharply reduced in the competitive market structure, because the existence of a decentralized credit system enhances the credibility of the threat of non-refinancing. The decentralized structure also allows for concentrating central government resources on

strengthening the efficiency of the grant allocation system itself, through establishing clear economic allocation criteria for grant allocation by the central government and adequate monitoring and incentives systems for the implementation of investment projects by sub-national entities, thereby considerably reducing the incidence of the soft budget constraint and of moral hazard on the sub-national debt market.

16. There are practically no examples of competitive market structures among major developing and transition countries to date. Within OECD countries, France provides an interesting example of a successful transition from an oligopolistic to a fully competitive sub-national debt market structure (see Dexia, op. cit.). The French government maintains a fairly simple system of capital grants allocation to local governments. This system is based on two components: a value-added tax (VAT) compensation fund available to all municipalities, municipalities associations, departments and regions, and a general grant for providing facilities, the latter being available for municipalities and associations of municipalities with a population of less than 20,000 and also for departments under certain criteria. These two grants are supplemented by a number of specific State subsidies. Borrowings by sub-national entities are not subject to prior approval, and the only controls are a retrospective check on the legality of the proceedings regarding recourse to a loan, and an ex-post budget check concerning the entry of debt repayments in the budget and the passing of a balanced budget. Sub-national entities must respect simple prudential rules, i.e they may not lend to others, and they may not finance their debt redemption out of borrowings. On the demand side, sub-national entities are free to take out loans in national or foreign currencies from the institution of their choice, or they may issue bonds. In the latter case, they must obtain prior government approval if the issue takes place on a market other than the Euro. On the supply side, financial sector liberalization as part of the creation of the single EU market has created a level playing field among market participants. Specifically, the predecessor of Credit Local de France historically enjoyed monopoly access to small-saver deposits through the French postal system. These deposits paid low, below-market interest rates, which the institution passed on to municipal borrowers. Financial liberalization has changed this relationship, and Credit Local de France (part of the Dexia Group) now raises 80 percent of its funds through international bond issues, and faces full competition from other financial institutions and from domestic and international bond issues by sub-national entities (see Peterson 1997, op. cit.).

(iii) Mixed sub-national debt markets

17. Between the two ends of the spectrum are a large number of intermediate market structures, leading to alternative patterns of principal/agent relationships between the central government, sub-national entities, and their lenders. These mixed market structures lead to possible additional agency problems. First, the presence of multiple channels for grant allocation and for lending, both within the central government and among specialized agencies and state-owned financial intermediaries amplify the agency problems encountered in the centralized grant and credit allocation structure, because they result in multiple-principal multiple-agent problems, and in implicit or explicit sovereign guarantees, increasing the risks of moral hazard and of adverse selection. Additional agency problems will arise among government ministries, specialized

agencies, and state-owned financial intermediaries, but also between state-owned intermediaries and private financial intermediaries and investors, in particular in an environment where state-owned financial intermediaries are protected by special regulatory provisions or fiscal privileges, resulting in a non-level playing field on the market.

18. Most sub-national debt markets in developing and transition countries belong to this latter category. The Czech Republic provides a good example of the development problems that can be encountered in a mixed market structure in which elements of a competitive sub-national debt market are combined with elements of state control over the allocation of credit to sub-national entities (see Inel 1999, op. cit.). On the one hand, between 1993 and 1997, Czech municipalities enjoyed increasing access to credit from commercial banks to finance their investments under conditions that are among the best in transition economies. The proportion of long-term loans in total loans increased steadily over the period. Although most commercial banks still remained in State hands during this period, market competition was fostered as a result of the establishment of a Municipal Finance Company (MUFIS), a USAID-supported financial intermediary that provides funds to Czech banks for on-lending to municipalities, and as a result of the growth of municipal loans by foreign banks operating in and outside the country. At the same time, the larger municipalities started to issue bonds of relatively long maturities (five to ten years) to finance infrastructure investments. On the other hand, government intervention policies posed a threat to sustainable development of the market in the country. First, the government maintained a non-transparent capital grant system for local governments, based on multiple distribution channels with unclear allocation criteria, creating uncertainty for market participants. Second, since 1994, the government pursued a deliberate policy of increasing subsidized state loans to finance municipal investments. As a result, the share of commercial credit in total municipal borrowings started to decline, while that of non commercial credits allocated by various state ministries and specialized state funds increased pari passu. Among these non-commercial sources, the State Environmental Fund was recently found to have a very high share of non-performing loans (up to 73 percent), softening the budget constraint for local governments and constituting a source of moral hazard in the system. Finally, more recently, in an attempt to control local government indebtedness to meet Maastricht convergence criteria, the government introduced an ex-ante approval requirement for municipal bonds that has resulted in a de-facto moratorium on all municipal bond issues, both domestic and international, creating the perception of an implicit sovereign guarantee for local government debt and resulting in a further increase in the share of non-commercial debt in local government debt.

Section B: The role of intermediate governments, local utility companies, and citizens

19. The above model can be extended to analyze the agency problems between various sub-national entities and their impact on the sub-national debt market, and to take into account the role of citizens as agents of both the central government and of local governments.

20. In many countries, agency relationships between the central government, sub-national entities and lenders are made more complex by the existence of several layers of local government, including states, regions, provinces, and counties, as well as by inter-municipal undertakings such as special districts or municipalities associations with an authority to undertake investments and to borrow on the market. The agency problems identified between the central government and sub-national entities will in many cases arise between various levels of local governments, because many intermediate governments have a responsibility to allocate capital grants and/or to lend to lower levels of governments. This intermediate relationships will in many cases magnify the agency problems identified in the basic model presented above, because they lead to a multiple principal-multiple agent situation that is conducive to moral hazard and/or adverse selection on the sub-national debt market.

21. Further difficulties may arise as a result of the existence of local utility companies that are owned and/or regulated by them. While many countries have adopted cross-sectoral and sector-specific umbrella laws governing the establishment of infrastructure concessions, the design and implementation of concession arrangements between local governments and local utility companies may be subject to complex agency problems. In particular, information asymmetries between local governments and local utility company operators may lead to moral hazard problems, for example due to difficulties in measuring the effort undertaken by a local utility operator to improve operational efficiency and to cut costs. For example, a recent study of the local government finance market in Hungary has revealed the complexity of the contractual relationships surrounding private sector participation in the management and financing of local utility companies, and the impact of these relationships on local government budgets, both as a result of unclear contractual obligations between the private operator/investor and the local government and as a result of guarantees and other contingent liabilities that are not integrated transparently in the local government budget (see Jokay, Kalman, and Kopanyi 1998, op. cit.).

22. Because project financing of local utility companies is seldom on a pure non-recourse basis, governments need to establish a legal and regulatory framework that provides a basis for revealing cost structures and measuring efficiency gains by local utilities, and a local government budgetary framework that allows for recording and correctly valuing guarantees and other contingent liabilities incurred by local governments vs local utility companies (see chapter 2, section B below).

23. Citizens can also play a key role in shaping agency relationships on the sub-national debt market. *Ex-ante,* citizens as principals of the local government can have a powerful impact not only on the type of investments undertaken at the local level, but also on the choice of financing instruments for these investments. This is the case for example if local government borrowing is subject to a local referendum, or to a special vote of the city council. This relationship can be made more complex if there is a differential requirement in function of the type of debt issued by the local government. For example, in the US, general obligation bonds are subject to a local referendum, while revenue bonds or lease-backed financing are not, thereby introducing a distortion in the selection of financing instruments by municipalities to finance their investments. *Ex-post,* citizens as principals of the central and of the local government can influence the

outcome of actions by the central government in the case of a default by a sub-national entity. This role can very well overpower the legal firewall that has been established by the central government between sovereign and sub-sovereign liabilities. In case of a default by a large sub-national entity, or in case of a large collective default by a set of small sub-national entities, citizens as agents may play a large role in shaping the modalities of intervention by the central government, thereby influencing the incidence of moral hazard on the sub-national debt market.

Chapter 2: Key constraints hampering the development of sub-national debt markets

24. Building on the analysis of agency problems presented above, this Chapter presents a framework for analyzing the constraints that hamper the development of sub-national debt markets in developing and transition countries. Although it is recognized that the scarcity of capital concentrations from insurance, pension and mutual funds constitutes a constraint to domestic debt market development in many developing and transition countries, we focus here on the constraints that are specific to the development of the sub-national debt market in these countries. Five types of constraints may be distinguished: (i) moral hazard; (ii) lack of market transparency; (iii) weakness of market governance; (iv) distortions in the framework for competition among market participants; and (v) lack of capacity for financial management by sub-national entities.

Section A. Moral hazard

25. Moral hazard on the sub-national finance market arises when borrowing by sub-national entities exceeds its optimal level as a result of the expectation of a bail-out by the central government in case of a sub-national default. This sub-optimal equilibrium is characterized by fundamental ambiguities in the relationships between the sovereign, sub-national borrowers, and lenders. Central governments claim that they do not guarantee sub-national debts, but undermine the credibility of their claim by allowing the development of soft budget constraints through various fiscal, public debt, and financial sector channels; sub-national borrowers claim to enjoy fiscal autonomy from the central government but undermine their credibility by taking advantage of soft budget constraints and by seeking, and in several cases obtaining, bailouts from the central government; and lenders claim to base their lending decisions on the intrinsic financial viability of the sub-national entity, while at the same time seeking explicit or implicit sovereign guarantees or counter-guarantees to back up their loans and/or guarantees to these entities.

26. Moral hazard in the sub-national finance market has two fundamental sources. First, *ex ante,* deficiencies in the structure of incentives faced by market participants, in the form of soft budget constraints in the system of fiscal decentralization, in the public debt system, and in the financial sector itself. Because money is fungible, moral hazard can be generated on the sub-national finance market both directly through the expectation of a bailout in case of default on a debt obligation due by the sub-national entity, and indirectly through the expectation of an intervention by the central government in case of non-payment of a non-debt fiscal obligation by the sub-national entity. If the sub-national

borrowers and their lenders can expect that arrears accumulated by the sub-national entity on a fiscal obligation other than debt repayment will be covered by the central government, they may have an incentive to carry out debt transactions beyond the optimum, assuming that the sub-national entity will be able to repay the debt through accumulating arrears on its non-debt fiscal obligation.

27. Second, *ex post,* the modalities of specific interventions by the central government in case of default on a debt obligation by a sub-national entity, or in case of arrears on a non-debt fiscal obligation by a sub-national entity. In both cases, the way in which the central government structures its intervention, in terms of conditionality and in terms of the actual loss imposed on the parties concerned, determines the extent of the bailout and the degree to which moral hazard is increased as a result of the intervention. The political determination of the central government to stand aside when a sub-national government defaults on its debts, or to impose a real cost on the sub-national political authority as the price for government assistance, is just as important as the regulatory framework in order to privatize sub-national risks.

1. Structure of incentives for market participants

28. Ex-ante, moral hazard can be generated on the sub-national finance market through deficiencies in the structure of incentives for market participants. Specifically, these deficiencies arise in the fiscal decentralization system, in the public debt system, and in the financial sector.

(i) The fiscal decentralization channel

29. The first channel through which moral hazard can be created on the sub-national finance market is the fiscal decentralization system.

30. The first possible source of moral hazard within the fiscal decentralization system originates from limitations to the fiscal autonomy of sub-national entities. On the expenditure side, these limitations originate from the existence of mandated expenditures or from regulations pertaining to specific categories of expenditures, such as civil servant salaries, that limit the ability of sub-national entities to adjust costs in line with the evolution of their economic environment. A fiscal decentralization system where a large share of local expenditures are effectively not under the control of sub-national entities breeds moral hazard, because it creates the expectation that the central government will intervene to support these mandated expenditures in case of an economic downturn. On the revenue side, these limitations originate from a small share of own tax revenues in the revenue base of sub-national entities, or from regulations limiting the range within which sub-national entities can modify own tax bases and/or rates, that constrain their ability to adjust their fiscal revenues to changes in their economic environment. A fiscal decentralization system where local authorities have the authority to borrow independently, but have limited own revenues, generates moral hazard because it encourages sub-national borrowers to contract debt obligations against general transfers from the central government, thereby escaping the need to broaden their own revenue base to meet debt service payments.

31. The second possible source of moral hazard originates from the design and modalities of implementation of specific components of the inter-governmental transfer system, namely deficit grants, capital grants, and transfer intercept arrangements.

32. *Deficit grants* are allocated by the central government to local governments facing an unexpected deficit "through no fault of their own". In theory, these grants will not generate moral hazard if their allocation rules are rational, transparent and strictly adhered to by the authorities. However, in many countries, allocation rules for deficit grants lack transparency, leading to rent-seeking on the part of sub-national governments, and contributing to a softening of their budget constraint.

33. *Capital grants* may also be a source of moral hazard depending on the type of grant concerned and on the modalities of their implementation. Unconditional block grants, that are allocated for general budget support on the basis of objective socio-economic criteria and are not conditional upon the undertaking of a specific investment project do not constitute a source of moral hazard. By contrast, as mentioned above, conditional matching grants may be a source of moral hazard due to the ex-post conversion risk that is inherent in these types of grants. To the extent that there are deficiencies in the monitoring system for these grants, sub-national authorities may have an incentive to use the proceeds of the grants for purposes other than those intended by the central government. This risk is further intensified in cases where there is no distinction between capital and recurrent expenditures in sub-national budgets, as is often the case in developing and transition countries. In these circumstances, conditional matching grants may lead to a softening of the budget constraint for sub-national entities, and therefore contribute to moral hazard on the sub-national finance market.

34. *Transfer intercepts* are arrangements under which sub-national borrowings are serviced directly by the central government, or under which a lender can seek payment from the central government for an overdue obligation by a sub-national borrower. In both cases, the payment by the central government to the lender is deducted from the transfer payment from the central government to the sub-national entity. These arrangements are generally appealing to lenders because they provide a strong security for their loans to sub-national entities. However, they also have several shortcomings. First, in the presence of an intercept, lenders may have a tendency to relax their credit criteria and their monitoring of sub-national borrowers since they know that they will be repaid irrespective of the quality of the risk taken and irrespective of the performance of the borrower. Second, because transfer intercepts are captured by the central government at the source, they tend to blur the perception of the debt burden by the sub-national entity, and they may reduce debt discipline. In many cases, sub-national entities only perceive fluctuations in the transfer payments from the central government, and they do not correlate these fluctuations with an intercept by one of their lenders. Third, in case of a default by a large sub-national entity, the central government will be under strong political pressure not to apply the intercept, because the contraction of local services that would result from the application of the intercept would be politically unbearable. If the central government suspends the application of the intercept, or applies it only partially, the credibility of the intercept system is damaged and moral hazard is generated.

35. The third factor are specific types of fiscal or quasi-fiscal obligations of sub-national entities toward politically powerful constituencies, such as pensions or social security payments. To the extent that sub-national entities expect that arrears incurred on these politically-sensitive obligations will eventually be covered by the central government, the budget constraint is softened and moral hazard generated.

(ii) The public debt channel

36. The second channel through which moral hazard can be created on the sub-national finance market is the public debt channel.

37. The first factor is a lack of clarity in the definition of what constitutes public debt. In particular, public debt legislation often fails to include guarantees and other contingent liabilities as part of public debt. To the extent that these guarantees and other contingent liabilities are not properly priced and counted against the indebtedness of sub-national entities, the budget constraint is softened, contributing to the expectation of a bail-out by the central government in case of a default, especially if there is no explicit limitation on the sovereign guarantee of sub-national debts (see below).

38. The second factor is the absence of legislation stating unequivocally that sub-national debt is not guaranteed by the sovereign, with possible exceptions to be approved on a case by case basis by the central government or by parliament. In the absence of such provision, sub-national entities and their lenders may be led to assume that sub-national liabilities are implicitly guaranteed by the sovereign, thereby increasing the expectation of a bailout in case of a default by a sub-national entity. The bailout expectation is further reinforced by the absence of a clear framework for local government bankruptcy. However, even such an explicit disavowal of sovereign support or the presence of a local government bankruptcy legislation may be insufficient to protect against moral hazard if political pressure builds upon the central government to provide support.

39. The third factor is the existence of prudential guidelines and/or prior approval of sub-national borrowings by the sovereign. While these guidelines and regulations may be useful in the framework of oligopolistic market structures, they are often interpreted by lenders as an *implicit sovereign guarantee* for sub-national liabilities, further fueling the expectation of a bailout in case of default by a sub-national entity and contributing to moral hazard. In addition, borrowing limits generally provide a false sense of security for the sovereign, because they can be easily circumvented by local governments. For example, in the countries of the EU, many local governments circumvent prudential limits by corporatizing their debt, through the establishment of municipal companies that become the vehicle for their borrowing, often with the direct support of the municipal budget or with the explicit or implicit guarantee of the local government.

40. In monopolistic market conditions, where the central government or one of its agency is the sole provider of credit to sub-national entities, the government will need to establish and respect limits on the amount of lending to individual sub-national entities, in the absence of a market test. In mixed market conditions, prudential limitations on the amount of borrowing by individual sub-national entities may be useful as a signal of

financial stress, although the signal may turn out to be a poor indicator of risk as mentioned above. Finally, in competitive market situations, prudential limits should be progressively relaxed and eventually phased out as budget constraints are tightened and market discipline takes hold.

(iii) The financial sector channel

41. The third channel through which moral hazard can be generated on the sub-national finance market is the financial system. Specifically, there are four main channels through which moral hazard may be generated in the financial system: (i) preferential capital adequacy treatment of sub-national debt as part of BIS guidelines; (ii) hidden sub-national financing schemes such as treasury lines or specialized state agency lines; (iii) municipal development funds; and (iv) concentration of lending by public and private lenders on large sub-national entities that are "too big to fail", either individually or collectively.

42. The first possible channel of transmission is the preferential capital adequacy treatment awarded to sub-national debt, regardless of creditworthiness, under BIS guidelines for banks. This preferential treatment implies a sovereign guarantee for sub-national debt, and therefore breeds moral hazard on the market.

43. The second possible channel of transmission are hidden financing schemes such as treasury credit lines or specialized state agency credit lines that provide financing to sub-national entities often at subsidized rates, through recurrent budget subsidies and/or through blending of capital grants and loans, the latter originating mostly from IFIs. Because these credit lines are managed by a central government ministry or by one of it agencies, they are directly vulnerable to pressure from large and politically powerful sub-national entities, or from powerful coalitions of municipalities. In many cases, they experience poor repayment records because of the expectation of a bailout by the central government, generating a culture of non-repayment by sub-national borrowers and contributing to moral hazard on the market.

44. The third possible channel of transmission are municipal development funds (MDFs), in cases when they suffer from poor repayment rates. A recent review of the experience of a group of MDFs in developing and transition countries (Peterson 1997, op. cit.) indicates that loan repayment rates vary greatly across funds, ranging from zero problem loans in some systems to systems that have a very high share of non-performing loans. Many municipal development funds with high repayment rates benefit from special types of loan guarantees, and loans backed only by the full faith and credit of the local government generally have higher non-performance rates. In most cases, the source of low repayment rates can be found in a misalignment of incentives for MDF management. In some cases, MDFs pass through the grace period that they have obtained on their resources from IFIs to the sub-national borrower, leading municipalities to underestimate the costs of debt servicing, and resulting in repayment difficulties at the end of the grace period. This is true in the case of general obligation borrowing, and also in the case of borrowing for project finance, because the construction period of individual projects is generally much shorter than the grace period on resources from IFIs. Also, in some cases, municipalities in default continue to receive grants from the central government and

receive new loans from the MDF, even though outstanding loans to the MDF have not been repaid, in an environment where MDF lending decisions are subject to political pressures and where both the MDF and the sub-national entities expect a bailout by the central government in case of default (see Peterson 1997). In such cases, the MDF becomes a parallel source of budget funding, softening the budget constraint for sub-national entities and resulting in moral hazard. State bond banks in the US also carry a similar risk, in cases when the state has a legal obligation to replenish the reserve fund in case of payment default by local governments (see part II, chapter 3).

45. The fourth possible channel of transmission are lenders facing the threat of a default by a large sub-national entity or of a collective default by a group of municipalities. In such cases, lenders, both public and private, may exert pressure on the central government to intervene even in the absence of an explicit sovereign guarantee, by threatening to downgrade the debt of the sovereign in the central government fails to take over the sub-national debt in default and service it. This risk was vividly exemplified in the case of the default of the state of Minas Gerais in Brazil in 1998. Such a bailout fuels moral hazard in the system and may threaten fiscal and macroeconomic stability. 1/

2: Modalities of specific government interventions

46. Ex-post, additional moral hazard can be generated in the sub-national finance market as a result of the modalities of central government intervention in case of a payment default on a debt obligation by a sub-national entity, or in case of arrears or payment default on a non-debt fiscal or quasi-fiscal obligation by such entity. Specifically, for any given set of ex-ante incentives for market participants, additional moral hazard will be generated if they succeed in pressuring the central government to provide support beyond what is stipulated ex-ante in the legal and regulatory framework. For example, in case of a default on a debt obligation by a large sub-national entity, or of a collective default by several sub-national entities, market participants may exert pressure on the central government to circumvent the local government bankruptcy law and provide special support beyond what is provided for the continuation of basic local services under the law, thereby reducing the loss that would be faced by creditors as a result of a strict application of the law.

47. Moral hazard can also be generated indirectly by central government interventions to cover arrears or payment defaults on a non-debt fiscal or quasi-fiscal obligation by a sub-national entity. The assumption of a sub-national quasi-fiscal obligation by the

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1/ Note that in February 2000, a new agreement was achieved between the State of Minas Gerais and the Federal Government on the repayment of eurobonds to the Federal Government.

central government can generate additional moral hazard on the sub-national finance market if it is done without imposing a cost on the sub-national entity, thereby signaling the willingness of the central government to support market participants in case of a default on a debt obligation.

48. The transfer of provincial pension systems from several provinces to the Federal government in Argentina in 1994 provinces provides a good example of the importance played by the modalities of specific government interventions in dealing with moral hazard (see Nicolini, Posadas, Sanguinetti, and Tommasi 1998, op. cit.). Specifically, the actual transfer of the pension system from the provinces to the Federal government involved the signing of a "transfer act" that had to be ratified by the local legislature and that established strong conditionality criteria. Among them, one clause established that the province delegated in the Nation the ability to legislate in matters of social security, and that the province assumed the firm commitment not to enact any law that allowed directly or indirectly the creation of a new provincial pension system. Also, the provincial government accepted that the National Treasury would make withholdings from co-participation income to cover the payment of the personal and employer contributions to the new nationalized system. In addition, the province assumed the consequences of any judicial action promoted by the beneficiaries, even if these actions were based on the alleged unconstitutionality of the proposed policy. Although the transfer did have some elements of a bail-out, because the Federal government absorbed provincial pension payment outlays irrespective of the imbalances present in the systems, and because the strength of the conditionalities were not dependent on the size of the implied deficits, the transfer did imply an immediate political cost for the provincial political authority, as evidenced by the conditions of the transfer pact, which had to be weighted against the future benefit of reduced burden on provincial finances.

Section B. Lack of market transparency

49. Lack of market transparency on the sub-national finance market is a widespread condition in developing and transition economies. At the root of this problem are weaknesses in local government budgeting, accounting, and auditing frameworks, and deficiencies in the regulatory framework for inter-municipal undertakings and infrastructure concessions.

(i) Budgeting, accounting and auditing framework

50. In many countries, the weakness of the local government budgeting, accounting and auditing framework undermines the quality and the reliability of the information available to the sub-national finance market. Within the budgeting framework, there is a lack of a distinction between current and capital expenditures in local government budgets, which makes it impossible to ascertain that long-term borrowings by sub-national entities are for investment purposes only, and undermines the effectiveness of prudential rules for local government borrowing. Multi-year budgeting is generally absent at the sub-national level.

51. Within the accounting framework, the major shortcoming is the general absence of an adequate accounting framework for asset-liability management, which makes it difficult to formulate informed judgements about the appropriate currency, interest rate, maturity, and structure of borrowings by local governments. In particular, local governments often have very limited knowledge of their assets, both in terms of ownership and valuation, which limits the feasibility of issuing securitized debt instruments.

52. Auditing of local government budgets is possibly one of the weakest element of the budgetary framework. In most countries, local government budget audits are the responsibility of the state audit office. However, the quality and frequency of local government budget audits by state audit offices are generally low. To overcome these constraints, some governments are moving to private sector audit of local government budget, but are facing constraints in achieving broad coverage in light of the limited development of the domestic auditing industry.

(ii) Regulatory framework for inter-municipal undertakings

53. In many countries, sub-national entities are too small to undertake investments on an economic scale. Given the political difficulties inherent in imposing local government mergers from the center, various forms of inter-municipal undertakings, such as municipalities associations, special purpose districts, and inter-municipal companies, can capture scale economies and help reaching critical mass for sub-national investments, both from an economic and from a financial perspective. For example, France has 36,000 municipalities with less than 5,000 inhabitants, and has relied extensively on inter-municipal undertakings to deliver a wide variety of local services and to undertake investments in local infrastructure at a scale that make them creditworthy.

54. In developing and transition countries, inter-municipal undertakings have the potential to become important borrowers in the sub-national finance market, and the existence of a framework to regulate the financing of investments by these undertakings is therefore key to foster sub-national finance market transparency. In practice, however, few countries regulate the allocation of specific local government revenue streams and local government assets to inter-municipal undertakings, the issuance of guarantees and other contingent liabilities from local governments for borrowings by these undertakings, and the prudential framework for borrowings by these undertakings. These regulatory deficiencies reduce market transparency, and hamper the development of the sub-national finance market.

(iii) Regulatory framework for infrastructure concessions

55. Across most developing and transition countries, a significant portion of sub-national investments are undertaken, not by local governments on their own account, but by local utility and service companies that are either owned or regulated by local governments, and are important borrowers on the sub-national finance market. The existence of a framework to regulate the relationships between local governments and these companies, or infrastructure concessions, is therefore critical to ensure transparency on the sub-national finance market.

56. Many countries have introduced umbrella frameworks to regulate infrastructure concessions, and borrowings by local companies have grown fast as part of the development of the sub-national finance market. In many cases, however, concession frameworks do not provide clear guidelines for borrowings by local utility companies and services providers, in particular with respect to the distinction between non-recourse borrowing and partial recourse borrowing, in which borrowing by the local company is supported by the local government through guarantees or other contingent liabilities.

Section C: Weakness of market governance

57. As a matter of principle, all provisions of the commercial code establishing the rights and obligations of creditors and borrowers on the financial market should apply to the sub-national finance market. The judicial framework providing for the enforcement of creditors' and borrowers' rights and obligations and for the settlement of commercial disputes should also apply fully to sub-national credit market participants. In many countries, however, due to regulatory and institutional weaknesses, investors and financial intermediaries may be reluctant to enter the sub-national finance market because of the perception that their rights will not be fully protected and that they will not be able to rely on the judicial system in case of commercial disputes with sub-national entities. This is the case in particular with respect to enforcing foreclosure on local government assets pledged as collateral, or enforcing covenants on local government revenue collateral.

58. In a large majority of countries, market governance also suffers from the lack of a local government bankruptcy framework. A well-designed local government bankruptcy framework can be instrumental in clarifying the rights and obligations of creditors and borrowers in a case of default, thereby reducing moral hazard on the market. For example, in 1995, Hungary introduced a Chapter-11 type procedure to regulate debt clearance procedures in case of default by local governments. Since the law was introduced, eight small cities went through the procedure, and are now in stable financial condition.

59. Local government bankruptcy legislation is not a panacea, however. In particular, the effectiveness of the local government bankruptcy framework critically depends on the degree of independence of the judicial body responsible for triggering the debt clearance procedure and for overseeing its implementation, and of the court-appointed public officer responsible for conducting the procedure. As a matter of principle, the court responsible for triggering and overseeing the procedure should be placed at a level well above the sub-national, to minimize the possibility for political pressure by the sub-national in default. Also, the effectiveness of the local government bankruptcy framework depends critically on the type of procedure relied upon to trigger the debt clearance procedure. In particular, mechanistic triggers should be avoided, and a court should be given the responsibility to trigger the debt clearance procedure upon request from the creditors, so as to give them enough time to fully exercise the contractual remedies foreseen in loan covenants or bond indenture agreements (see El-Daher, Kopanyi, and Noel 1999, op. cit.).

Section D: Distortions in the framework for competition among market participants

60. Establishing a competitive environment for the sub-national finance market is critical to enable the market to fulfill its role in efficiently mobilizing financial resources from savers, correctly pricing sub-national credit, and efficiently allocating financial resources among competing sub-national investments through diversified sub-sovereign lending and guarantee products. In many developing and transition countries, however, sub-national finance markets are prevented from playing their full role in the economy because of distortions resulting from specific features of the fiscal decentralization system and/or specific regulatory and institutional characteristics that prevent free entry and competition on the market.

61. First, in many developing and transition countries, capital grant systems from the central government to sub-national entities are generally non-transparent and lack clear criteria for grant allocation among sectors, within sectors among projects, and within specific projects between grant funding and borrowing. In particular, conditional capital grants often cover project costs beyond the cost of externalities that cannot be internalized by the market. In these cases, capital grants distort relative prices and prevent the sub-national finance market from playing its role in correctly pricing sub-national credit and in efficiently allocating resources among competing sub-national investments.

62. Second, in many countries, hidden financial sector schemes such as treasury lines and/or specialized agency lines enjoy a dominant position on the sub-national finance market. In many cases, this dominant position is backed up by specific regulations, such as rules restricting sub-national entities to borrowing from the treasury/agency line, or rules prohibiting sub-national entities from borrowing from commercial banks, thereby undermining the emergence of a private sub-national debt market. This is the case for example in Latvia (see chapter I, section A above). In many cases also, treasury and/or agency lines allocate credits to sub-national investments at subsidized rates that do not reflect the underlying sub-national credit risk, thereby distorting resource allocation among competing sub-national investments and displacing private sector finance for sub-national investments.

63. Third, in many countries, protective frameworks surround the operations of MDFs in the form of special fiscal and/or financial privileges, such as special authority to blend capital grants and loans, obligation for sub-national entities to maintain their current account with the fund, protected access of the fund to certain classes of household deposits, and privileged access to resources from IFIs. Such frameworks are very common in the context of oligopolistic, segmented financial systems encountered in many developing and early transition countries (see chapter 3 below). However, as countries evolve from oligopolistic to open, competitive financial systems, barriers to competition between various segments of the market are progressively removed, implying fundamental changes in the structure of incentives facing MDFs.

64. Within OECD countries, Credit Local de France (CLF) provides a vivid example of how a specialized municipal finance intermediary that initially grew under a protective framework within a segmented financial system can evolve to adjust to the removal of this protective framework and to pursue its mission successfully in the context of an open, competitive financial system (see Peterson 1997, op. cit.). The predecessor of Credit Local de France (CLF) enjoyed monopoly access to small-saver deposits collected through the French postal saving systems. These deposits paid low, below-market interest rates, which the institution passed on to municipal borrowers. As part of a broad liberalization of the financial system in the early nineties, this relationship was changed. By early 1996, CLF raised more than 80 percent of its resources through international bond issues. At the same time, the government reduced its equity stake in the institution and completed its privatization. Communal Credit Belgium (CCB) undertook a similar evolution, as part of the transformation of the country's financial system in line with the implementation of the single EU financial market. Recently, CLF and Credit Communal de Belgique successfully completed a full merger and have become the largest financial intermediary specializing in sub-national finance on the European market.

65. Among developing and transition countries, few MDFs to date have undertaken a transition from a protected framework to an open system (see Peterson 1997, op. cit., and Inel 1998, op. cit.). This situation is due to several reasons. First, in many countries, MDF management have resisted increased private sector participation in the management and ownership of the institutions. Second, in several countries, central governments have been under political pressure both from the MDF and from sub-national entities to delay the implementation of phased removal of protective frameworks surrounding MDFs. This in turn delayed the emergence of more competitive sub-national finance markets in which MDFs could become successful players. There have been notable exceptions to this tendency. For example, in Brazil, the Parana Municipal Development Fund developed into a well-managed institution with a strong credit record, and is currently envisaging alternatives for increased sector participation in the capital of the fund. In Colombia, FINDETER has developed into a relatively open second tier channel for which all commercial banks can compete for refinancing of municipal loans, at a rate without significant credit subsidies. As mentioned above, MUFIS in the Czech Republic also succeeded in increasing competition for municipal credit among commercial banks in the country (see paragraph 18).

Section E: Lack of capacity for financial management by sub-national entities

66. In the presence of agency problems, sub-national entities have a strong interest not to reveal accurate information about themselves to the market. They contribute to the information asymmetry that is at the heart of moral hazard and adverse selection problems discussed earlier. The prevalence of moral hazard, lack of market transparency, weak market governance, and the distortions in the competitive framework among market participants, are a disincentive for municipalities to establish transparent accounting practices and to develop and strengthen their budget and financial management capacity. At the same time, however, the weakness of local government capacity for accounting, budgeting, and financial management acts as a constraint in its own right to the development of a sound sub-national finance market in all developing and transition countries.

67. At the most fundamental level, many local governments have weak accounting practices. In most cases, local accounting is on a cash basis only, and does not distinguish between recurrent and capital expenditures. In such a situation, it is difficult to ensure that long-term borrowing is for capital investments only, and prudential rules limiting the financing of recurrent deficits to short-term borrowing are not enforceable (see paragraph 50 above).

68. At the next level, few local governments apply multi-year budgeting processes. As a result, it is very difficult for them to thoroughly assess, even at the simplest level, the impact of alternative investment plans and of alternative investment financing scenarios on the city finances over the medium-term.

69. Finally, even fewer local governments have adopted accrual accounting alongside the regular cash accounting system. A vast majority of local governments do not have an accurate accounting of the assets they own, even less a valuation of these assets. As a result, most local governments do not rely on even the most basic asset-liability management techniques to optimize their investing and borrowing decisions, let alone on more advanced dynamic ALM techniques. On the assets side, local government investments are seldom considered as options on future cash flows generated either indirectly from increased tax revenues generated by increased economic growth as a result of the investment or directly from tariff revenues generated by the sale of output of goods or services produced by the facility built as a result of the investment. As a result, neither the size nor the timing of future investments are optimized. On the liability side, few local governments have developed the capacity to formulate their liability management objective function, identifying and measuring risk exposure in relation to the objective, deciding on an acceptable degree of risk exposure, and choosing and executing hedging transactions.

Chapter 3: The evolution of the sub-national debt market as part of the transition from closed to open financial systems

70. Based on the analysis of the systemic constraints hampering the development of sub-national finance markets, this Chapter presents a framework to analyze the evolution of these constraints throughout the transition from closed, narrow, oligopolistic market structures with a large state presence to open, diversified, competitive market structures with a relatively large private sector presence (see King, Roe, and Siegelbaum 1998, op. cit.).

71. In closed, oligopolistic financial systems, sub-national debt markets are characterized, like the rest of the financial sector, by a steeply rising risk frontier whose shape is determined by the high incidence of moral hazard, low transparency, weak governance, and large distortions in the competitive framework for the market. As one moves toward open, competitive financial systems, the risk frontier on the sub-national debt market shifts upward as a result of improvements in the macroeconomic environment, in the fiscal decentralization system, in the public debt framework, in commercial and local government bankruptcy legislation, in judicial institutions, and in

the financial sector regulatory and institutional framework, in particular with respect to sub-national debt issuance and the establishment of a level playing field among lenders on the market. At the same time, the privatization of state-owned banks, the entry of new private banks, and the development of institutional investors on the capital market as one moves from close to open financial systems provides the foundation for sub-national debt market deepening and diversification, both in terms of the range of sub-sovereign products that can be offered to private savers, and of the range of financing and guarantee products to which sub-national borrowers can have access.

72. In particular, open, competitive sub-national debt markets are characterized by increasing diversification between bank lending and directly placed debt. Sub-national borrowers with credit ratings toward the middle of the spectrum generally rely on bank loans, because their rating is too low for reputation effects to eliminate moral hazard, and because monitoring of private information is most efficiently delegated to a financial intermediary rather than collected directly by many investors (Diamond 1991, op.cit.). As sub-national borrowers build their credit record, reputation effects eliminate the need for monitoring when the value of future profits lost because of the information revealed when defaulting is large. High-rated sub-national borrowers do not need monitoring, and they generally switch to directly placed debt. At the other end of the spectrum, very low rated sub-national borrowers have less to lose if they reveal bad news about themselves by defaulting, and also if they reveal bad news about themselves by being caught when monitored. Monitoring by itself will not provide incentives for these very low rated borrowers; instead the role of monitoring will be to screen out sub-national borrowers with a very high probability of default.

73. The evolution of the systemic constraints to market development, and the concurrent shift in the risk frontier as one moves from closed to open financial systems, have powerful implications for the type of financial institutions and the mix of financial products on the sub-national debt markets. Understanding where a country's financial system stands on this evolutionary path is critical to assess the challenges faced in designing and implementing policies to support the development of the sub-national debt market.

Chapter 4: Establishing the prerequisites for sub-national debt market development: A framework for policy reform

74. Based on the analytical framework developed above, this Chapter presents a framework for policy reform aimed at establishing the prerequisites for sub-national debt market development.

75. The framework is presented in the form of a policy matrix (see figure 1) with the following dimensions:

(i) Across the *vertical axis*, a typology of the key policy objectives faced in developing sub-national debt markets across developing and transition countries, i.e.:

- Reducing moral hazard
- Improving market transparency
- Strengthening market governance
- Establishing a level playing field on the market
- Developing capacity for accounting, budget and financial management by sub-national entities

(ii) Across the *horizontal axis*, a typology of financial systems, from closed, oligopolistic, state-dominated financial sectors to open, competitive, diversified, private financial sectors, with intermediate systems between the two ends of the spectrum.

Figure 1

Establishing the prerequisites for sub-national debt market development

Policy matrix

Policy area	**Closed system**	**Intermediate system**	**Open system**
Reducing moral hazard		Establish fixed shared revenue formula	Diversify own-source revenue base
		Establish local government authority over own-source revenue rate setting	
	Unify capital grant allocation system	Establish explicit rules for capital grants allocation	Limit capital grants to cover cost of externalities that cannot be internalized
		Introduce monitoring system against conversion of capital grants	
		Limit sovereign guarantees for sub-national transactions	

	Control quasi-fiscal liabilities of sub-national entities	Establish provisioning rules for sub-national guarantees and contingent liabilities Remove preferential capital adequacy treatment for sub-national debt Control large sub-national exposures by domestic financial intermediaries	Integrate guarantees and other contingent liabilities in sub-national entities debt
	Establish tight limits on government lending to sub-national entities	Establish prudential framework for borrowing by sub-national entities	Progressively relax prudential rules in line with opening of market competition
Improving market transparency		Introduce separate current and capital accounts in local government budget Establish central/local government asset designation Strengthen local government auditing Define specific formats for debt disclosure by local governments	Introduce local government accrual accounting system Introduce local government asset valuation Define treatment of local government guarantees and other contingent liabilities in concession legislation Develop domestic private auditing industry Review formats for debt disclosure in line with evolution of local government accounting system

Strengthening market governance		Ensure equal treatment for sub-national entities in commercial code	Introduce local government bankruptcy law
Establishing a level playing field on the market	Separate capital grants system and central government-run financing schemes	Phase-out central government financing schemes Phase-out protective fiscal/regulatory framework for MDFs	Increase private sector participation in MDFs
Developing local capacity for budget, accounting and financial management	Establish basic cash accounting framework Establish basic current/capital budgeting framework	Develop basic capacity for liability management	Develop accrual accounting framework Develop advanced Asset-liability management framework

76. The above policy matrix presents, for each policy objective and market structure, the key policy reforms that are required to establish the foundations for the development of a sound sub-national debt market.

- ***Reducing moral hazard***

77. Reducing moral hazard requires to design and implement a complex array of policy measures aimed at establishing hard budget constraints across the fiscal decentralization, public debt, and financial sector channels.

78. Within the fiscal decentralization channel, the first priority within a closed system is to unify the capital grant allocation scheme in order to reduce the agency problems associated with multiple grant allocation systems. As the market structure opens and evolves into an intermediate system, the key priorities are to establish clear rules for capital grant allocation within the unified system and to introduce a monitoring system to limit the problem of conversion of conditional grants. In parallel, current transfer systems need to be stabilized through introducing fixed shared revenue formula and through establishing local government authority over own-source revenue rate setting. Finally, as

the market structure evolves to an open system, the government can focus on developing diversified, market-based own revenue sources.

79. Within the public debt channel, the first priority within a closed system is to establish control over quasi-fiscal liabilities of sub-national entities, and to introduce limits on central government and/or state agency lending to sub-national entities. As the market structure evolves into an intermediate system, the key priorities are to establish an explicit limitation on sovereign guarantees for sub-national transactions, establishing clear provisioning rules for sub-national guarantees and other contingent liabilities, and introducing a prudential framework for borrowing by sub-national entities. As the system opens, the government can focus on developing a market-based system based on pricing of guarantees and other contingent liabilities as part of sub-national entities budget, and it can relax prudential rules in line with the general hardening of the budget constraint.

80. Within the financial sector channel, the first priority within an intermediate system is to remove the preferential adequacy treatment for sub-national debt for the purposes of capital adequacy calculations, and control large sub-national exposures by financial intermediaries. In addition, several measures that are essential to establish a level playing field on the market are also on the critical path to reducing moral hazard in the market, i.e. gradually phasing-out hidden financing schemes such as treasury and/or specialized agency lines of credit, and gradually phasing out the protective framework surrounding municipal development funds (see below).

- ***Improving market transparency***

81. Within intermediate market structures, a broad array of policy reforms need to be designed and implemented to promote transparency on the sub-national debt market. The first priority is to establish a local government accounting framework separating current and capital expenditures, establish a legislative framework clearly designating local government assets, develop auditing of local government accounts by the state audit office, and regulate procedures and formats for debt disclosure and registration by local governments.

82. As an open market structure takes hold, the key policy priorities are to strengthen the local government accounting system through the introduction of accrual accounting in addition to the traditional cash accounting system, to introduce market-based valuation for local government assets, to regulate the treatment of local government guarantees and other contingent liabilities in concession contracts and the pricing and accounting of these guarantees in local governments budgets, to establish the legal and regulatory foundations for a domestic private auditing industry, and to revise formats for debt disclosure and registration in line with the evolution of the local government accounting framework.

- ***Strengthening market governance***

83. Within intermediate market structures, key policy reforms are required to strengthen market governance in the sub-national debt market. The main priority is to ensure that the legal framework provides the same protection to creditors in the case of

claims against sub-national entities as in the case of private corporations under the commercial code. As a competitive market develops, government should focus on introducing an effective local government bankruptcy framework, focusing in particular on establishing sufficient distance between competent courts and local governments.

- ***Establishing a level playing field on the market***

84. Establishing a level playing field on the sub-national debt market requires to take policy measures early on in the process of market development and to follow them through as the market evolves to an open structure.

85. Within closed structures, the key priority is to separate the management of unified capital grant allocation and of central government-run financing schemes. Once an intermediate market structure develops, the focus should be on gradually phasing-out central government financing schemes and the protective framework surrounding MDFs. Once an open market takes hold, the key priority is to increase private sector participation in the management, ownership and financing of MDFs. Increased public-private partnership in MDFs can be achieved through a range of mutually reinforcing measures, such as management contracts with private financial institutions, equity participation by private strategic investors, and increased reliance on the domestic debt market for the financing of the funds.

- ***Developing local capacity for accounting, budgeting and financial management***

86. As an intermediate market structure develops, as budget constraints take hold through the fiscal decentralization, public debt, and financial sector channels, as basic regulations for market transparency and market governance take hold, local governments will have an incentive to produce transparent accounts, develop and implement balanced budgets, and develop a good credit record on sub-national debt markets.

87. As these incentives take root, governments should put in place a framework to support the development of local capacity in the areas of accounting, budgeting, and financial management. Initially, capacity building efforts should focus on developing a basic capacity for liability management at the local level, and a capacity to establish institutional and regulatory frameworks to support private sector participation in local infrastructure and services. As an open market takes hold, further capacity building efforts should focus on advanced asset-liability management techniques, including optimization of investment plans based on options pricing methods, and the use of derivative instruments for risk management.

Part II: Building the architecture for sub-national bond markets

88. Building on the discussion of the policy prerequisites for the development of the sub-national debt market presented in Part I, Part II examines in detail the key elements of the architecture for sub-national bond markets. Chapter 1 examines the relationship between the development of domestic bond markets and of the sub-national bond market. Chapter 2 discusses the regulatory and supervisory framework required to support the development of the sub-national bond market. Chapter 3 examines the dynamic relationships between key market players and market instruments for credit enhancement and bond pooling. Finally, Chapter 4 outlines priorities for the strengthening of sub-national bond market architecture in developing and transition countries.

Chapter 1: The relationship between the development of domestic bond markets and of the sub-national bond market.

89. This chapter examines the relationship between the development of the domestic bond market and of the sub-national debt market.

Section A: Term structure of interest rates and development of the sub-national bond market.

90. In general, the development of the sovereign bond market provides the foundation for the emergence of the other components of the domestic bond market. In the corporate bond market, most market participants construct yield curves from observations of prices and yields in the government bond market. This results from the fact that government bonds have traditionally been considered as default-free, and because the government bond market generally offers the fewest problems of illiquidity or infrequent trading. However, in recent months, the default-free quality of government bonds in developing and transition countries has increasingly been put into question, both as a result of the Russian government bond default in August 1998, and as a result of a growing trend toward integrating sovereign bonds in debt restructuring agreements (ex Ecuador 1999).

91. In the municipal bond market, several benchmark yield curves may exist. In general, a benchmark yield curve is constructed for AAA-quality rated general obligation bonds. In the US, Delphis Hanover prices yield curves for the four investment grade credits, as well as for credits in between. However, in recent years, market participants have realized that traditionally constructed benchmark yield curves are an unsatisfactory measure of the relationship between required yield and maturity, because different securities with the same maturity may be trading at different yields due to differences in coupon rates.

92. As in the corporate market, current coupon bonds are used for constructing the yield curve. However, in the government bond market, current coupon bonds are generally issued on regular cycles. This is not the case in the municipal bond market. Therefore, in order to derive an appropriate yield curve, the AAA curve is generally

derived from market observations on yields of new issue bonds in the associated market sector. As shown by Fabozzi and Feldstein (op.cit., 1995), to eliminate the problem of non-uniqueness of the yield-maturity relationship, traditional approaches to the benchmark yield curve are increasingly replaced by an alternative approach that consists of identifying yields that apply to "zero coupon" bonds. In this approach, a bond is viewed as a package of zero-coupon bonds with a maturity equal to the time when the coupon payment will be made, or in the case of the principal, the maturity date. The value of the bond should equal the value of all the component zero coupon instruments. To determine the value of the zero coupon instruments, a theoretical spot rate curve is derived from theoretical considerations as applied to the estimated yield curve for a particular sub-national issuer of the same credit quality. (see Fabozzi and Feldstein 1995, op. cit.).

93. While the sovereign bond market places a critical role in the early stages of development of the sub-national debt market, its role becomes less important as the sub-national debt market gains in depth and diversity. Over time, prime-rated sub-national debt issues become the dominant reference in establishing a yield curve for particular sub-national issuers, and a sub-national debt market can develop relatively independently of the evolution of the sovereign debt market. In cases where decentralization efforts succeed in shifting responsibility for the vast majority of infrastructure investments to sub-national entities as opposed to the central government, one could envisage a situation where the borrowing requirements of the central government are drastically reduced and those of sub-national entities are greatly increased over time. In these cases, the decentralization process may be accompanied by a progressive shift in the structure of the domestic bond market away from sovereign debt toward sub-national and other non-sovereign bond issues. Prime-rated sub-national issuers will play a key role in managing this transition, as they may progressively substitute for the sovereign in establishing the yield curve for individual sub-national issuers.

Section B: The role of the municipal bond market in the diversification of the domestic debt market

94. Building on this foundation, the sub-national bond market can provide a strong impetus to the development of the domestic bond market, by offering a diversified range of instruments for savers in terms of risk, term, and security structure.

95. The US bond market provides a vivid illustration of the wide diversification of instruments that can be offered to investors by the sub-national debt market. Beyond the basic general obligation bond issued against the full faith and credit of the issuer, the US municipal bond market offers a wide range of choices of revenue bonds that are issued for either project or enterprise financings, in which the security for the bond is provided by the revenues generated by the operating projects financed.

96. For example, in the water and wastewater sector, *water revenue bonds* are issued to finance the construction of water treatment plants, pumping stations, collection facilities, and distribution systems, with revenues coming from connection fees and charges paid by

the users of the water systems. In the social infrastructure sector, *lease-backed bonds* are structured as revenue-type bonds with annual rent payments coming from earmarked tax revenues, student tuition payments, or patient fees. In other cases, the underlying lessee government unit makes annual appropriations for the servicing of the bond from its general fund. In the construction sector, *tax allocation bonds* are secured by additional property taxes collected from the new or improved property.

97. In addition to these various bond structures and instruments, the US market has been characterized by the emergence of a wide array of internal and external credit enhancement structures for municipal bonds, such as refunded bonds, insured bonds, and bonds backed by letters of credit or other forms of credit enhancement from banks (see below).

98. In most developing and transition countries, sub-national bond markets are still largely dominated by general obligation bonds, and structured bond financing is emerging only progressively. This is because many local governments lack the capacity to establish the regulatory and supervisory framework for private sector participation in municipal companies, reducing the scope for the issuance of revenue bonds, and because financial sectors do not yet offer the various types of credit enhancement typically found in more advanced systems. As markets develop, however, local governments tend to diversify their borrowing instruments and rely more on structured bond instruments. This diversification has been observed in several Latin American countries as municipalities re-entered the domestic bond market in the wake of the stabilization programs following the Mexican crisis. The change from general obligation to revenue bonds also met the demand from institutional investors for additional security in purchasing local government bonds (see Darche, Freire, and Huertas 1998, op. cit.).

Section C: The development of the secondary sub-national bond market

99. In most developing and transition countries, sub-national bond markets develop along successive stages. First, local governments may issue bonds to local banks as part of their liability management strategy and the banks may initially decide to keep these bonds on their books and treat them de facto as a loan. Subsequently, banks and other underwriters may opt for private placements with selected domestic investors, such as pension funds, insurance companies, or mutual funds. Finally, rated cities or municipal companies may decide to opt for a public placement, and institutional investors may decide to trade sub-national bonds held in their portfolios, and a secondary market in sub-national bonds may emerge.

100. To date, active secondary trading markets in sub-national bond issues are almost non-existent in developing and transition countries. This is not surprising, as secondary trading in sub-national issues tends to develop only after secondary trading is well under way in more familiar securities, such as stocks or central government treasury debt, and investors have become familiar with basic trading strategies and procedures. A significant volume of outstanding sub-national debt is also required, as is the availability of information necessary for investors to assess sub-national credit quality. Other factors

that contribute to the development of secondary market trading include the existence of benchmark bonds to assist with pricing (see section A above), a fiscal regime that does not discourage trading, and trading systems and mechanisms that allow good communication between buyers and sellers as well as timely payment and settlement of trades.

101. The development of secondary markets for sub-national bonds can be supported by a range of direct and indirect measures. Among direct measures, a variety of countries are exploring ways to facilitate the listing of bonds on domestic stock exchanges and to encourage the development of pre-indication posting or other municipal finance information systems similar to those used in the US to support placement and sales function (for example, Blue List and Munifax). For example, Poland and Indonesia have given particular attention to rules for listings of bonds on their stock exchanges, but the actual impacts on secondary markets in these countries is not yet apparent (see Leigland 1997, op. cit.).

102. As shown by Leigland (op. cit, 1997), several measures can be taken to promote trading indirectly. Removing minimum holding requirements by institutional investors for government securities, including municipal bonds eliminates the bias toward private placement inherent in the system and increases the incentive of institutional investors for trading. This is one of the objectives pursued by the government of South Africa in abandoning its prescribed investment regime for institutional investors, which hampered the development of the secondary market by creating a captive community of institutional investors to whom specially tailored municipal bonds were sold via private placement. Issue-specific structuring may also help improve the tradeability of municipal bonds by mitigating interest rate and other risks. A possibility is to sell bonds with variable rates, thus giving investors some protection against changes in interest rates. Another possibility is to sell bonds with a put option, allowing investors to shorten the maturity of the bond. However, these techniques increase issuance costs and may also increase debt servicing costs (dee Leigland 1997, op. cit.).

Chapter 2: The regulatory and supervisory framework for the sub-national bond market

103. This chapter examines the various elements of the regulatory and supervisory framework for the sub-national bond market in developing and transition countries.

Section A: The market regulatory framework

104. This section examines the key elements of the regulatory framework for the sub-national bond market. We examine in turn (i) the overall regulatory framework for the sub-national bond market; (ii) regulations pertaining to the issuance of municipal bonds; (iii) regulations pertaining to structured municipal bonds; (iv) regulations pertaining to portfolio holdings by institutional investors; and finally (v) the fiscal regime for municipal bonds.

(i) Overall Regulatory framework for sub-national bond issuance and disclosure

105. The basic regulation for the sub-national bond markets is the securities law. Since sub-national entities compete directly with corporations for scarce investors resources, all regulations pertaining to issuance, initial and continuing disclosure, and settlement that are applicable to corporate securities should also apply to sub-national issues.

106. Within this overall framework, issuance regulations should also contain special directives for the financial information to be presented to the market in case of public issue by sub-national entities, taking into account the specificity of the local government accounting framework. In many cases, however, securities laws, written with corporate issuers in mind, do not contain standardized requirements for the financial information to be provided by sub-national entities to the market. As a result, sub-national entities are often left to themselves to design their own formats for initial and continuing disclosure, making it difficult for investors to analyze and compare sub-national issues, and reducing market transparency.

107. In addition, issuance regulations may also contain specific provisions regulating private issuance by sub-national entities, such as minimum issue size, ex-ante notification of investors to the government, and minimum requirements in terms of disclosure to private investors.

(ii) Regulations pertaining to the issuance of sub-national bonds

108. In addition to the general regulatory framework for securities, specific regulations are required with respect to the issuance of sub-national bonds.

109. First, the regulator must establish the obligation for sub-national issuers to obtain a legal opinion both for general obligation and revenue bonds. The relationship between the legal opinion and the safety of sub-national bonds is three-fold. First, bond counsel should establish that the issuer is legally able to issue the bonds. Second, bond counsel should establish that the issuer has enacted the various required ordinances, resolutions, and trust indentures without violating any other laws and regulations. Third, bond counsel must certify that the security safeguards and remedies provided for the bondholders and pledged either by the bond issuer or by third parties are supported by central or regional laws and regulations (see Fabozzi and Feldstein 1995, op. cit.).

110. Second, the regulator must establish clear limits on the participation of municipal bond underwriters in political activities. For example, in the US, the Securities and Exchange Commission (SEC) has adopted Rule G-37, that bars firms from participating in negotiated underwritings with an issuer for two years after making political contributions to officials who could influence the awarding of the bond business. However, Rule G-37 can be circumvented, since it does not stop firms from contributing to political parties that provide campaign support, or from giving money to political committees that support ballot initiatives that are closely tied to elected officials. Hill and

Simonsen (op. cit., 1998) find evidence of significant influence of elected officials in choosing not to systematize the choice of underwriters in the US.

(iii) Regulations pertaining to the issuance of structured sub-national bonds

111. In addition to regulations pertaining to the issuance of sub-national bonds in general, specific regulations are required to support the issuance of structured issues.

112. First, specific provisions are required in the public finance legislation to allow sub-national entities to set up sinking funds in their budget to repurchase a specific portion of a bond issue before maturity, with the objective to accomplish similar leveling out of debt repayments on the obligation. The public finance legislation should also allow sub-national entities to set up escrow funds providing collateral as security for refunded bonds.

113. Second, specific provisions are required in the local government legislation to define the various types of securities that can be provided by local sub-national entities as collateral, both in terms of revenue and assets. With respect to assets, specific provisions are required to distinguished between those local government assets that can attached as collateral and those that cannot. In addition, the legislation pertaining to public assets should provide for a clear designation of local government and municipal company assets. Finally, legislation is required to establish the method for valuation of public assets, that is critical both from the perspective of introducing value-based property taxation and of pledging these assets as collateral.

114. Third, specific legislation is required to regulate the financing system for inter-municipal undertakings, such as special purpose districts, inter-municipal companies, and municipalities associations, focusing in particular on revenue assignment, asset designation and collateralization, and ability to establish both sinking and escrow funds.

(iv) Regulations pertaining to portfolio holdings by institutional investors

115. On the demand side of the market, the government needs to establish a regulatory environment where institutional investors have the freedom to invest across a broad range of instruments, including bonds issued by sub-national entities. In many countries, the regulator restricts institutional investor's freedom to invest, both by excluding certain types of investments and/or by imposing minimum holding requirements in certain classes of securities.

116. For example, until recently, Indonesian pension funds could only purchase securities that had been listed on public exchanges for three years, thus prohibiting investment in an initial offering of bonds. In Poland, banks may not invest more than 25 percent of their capital in corporate-type securities (including municipal bonds). Insurance companies may invest only in bonds issued by companies or enterprises owned by local governments, not in bonds sold by local governments unless they are backed by a central government guarantee. Investment funds are free to invest in municipal bonds,

but 90 percent of their holdings must be in securities listed for trading on the Warsaw stock exchange or the OTC market, discouraging private placement of municipal bonds.

117. While many restrictions pertaining to portfolio holdings by institutional investors may be defensible in the early stages of development of capital markets in transition countries, they need to be relaxed as the market develops, less they hamper the emergence of a sound sub-national bond market.

(v) Tax regime for sub-national bonds

118. Finally, the government needs to establish the tax regime for sub-national bonds.

119. In the US, municipal bonds are exempt from federal interest income tax. In the 1960s, municipalities began to use their favored access to credit markets to induce businesses to locate in their jurisdictions, through the issuance of industrial development bonds, used by municipalities to finance construction of structures that were then leased to the private sector, with the lease payments providing the revenues to meet debt service payments. This led to the rapid development of other forms of revenue bonds, each tailored to serve a specific constituency. By the early 1980s, the issuance of private-activity bonds was out of control. In response to this development, the Tax Reform Act of 1986 considerably tightened eligibility criteria for private activity bonds. The main test is a joint test of uses-of-funds and of security interest: if more than 10 percent of a bond's proceeds are used for private purposes and if more than 10 percent of the debt service is derived, directly or indirectly, from a private use, the bond is considered a private activity bond. In order to qualify for tax exemption, a private activity bond must be within the state volume limit and must satisfy certain maturity restrictions. (The state volume limit is et at the greater of $50 per capita or $150 million). Tax exemption is automatically granted to private activity bonds within that limit. However, exempt facility bonds are excluded from the volume limit and can be issued in tax exempt form in any amount. These exempt facility bonds include airports, docks and wharves, solid waste facility, etc, as well as qualified mortgage bonds, qualified small-issue industrial mortgage bonds, qualified student loan bonds, qualified redevelopment bonds, and qualified non-profit organization bonds (see Fortune 1992, op. cit.).

120. Tax exemption for municipal bonds is subject to three main criticisms. The first criticism is that tax exemption induces unnecessary volatility into municipal bond yields: it narrows the market for municipal bonds and makes it more sensitive to change in the distribution of investable funds between individuals and financial institutions, and to other factors affecting financial markets. Also, tax exemption introduces variability in the value of the capital-cost subsidy enjoyed by municipalities. Empirical evidence of the interest rate ratio for municipal bonds of various maturities in the US shows that municipal bond yields are more volatile than yields on US Treasury bonds (see Fortune, op. cit.). The second criticism is that tax exemption is economically inefficient, in that it encourages overproduction of public services and overuse of capital by the public sector. Estimates of the social cost of tax exemption based on 1980-85 US data shows the economic cost of tax exemption in terms of output foregone to be mild. The third criticism is that tax exemption is inequitable, because it erodes the vertical equity in the tax system by allowing the wealthy to avoid taxation in ways that are not available to the

less affluent. Finally, the fourth criticism, closely connected to the third, is that tax exemption is financially inefficient, because it imposes greater costs on federal taxpayers than the benefits it confers to state and local governments. Empirical evidence from the US market tend to support this latter claim. For example, in Fiscal Year 1990, savings from tax exemption for state and local governments were estimated at US$ 17 billion, while the revenue cost to the Treasury was estimated at US$ 22 billion (see Fortune 1991, op. cit.).

Section B: The market supervisory framework

121. As a matter of principle, the ultimate supervisory authority for the sub-national bond market should rest with the securities market regulator. The market regulator may be modeled as a self-standing body, such as the Securities and Exchange Commission in the US, or as a specific department within a Banking and Capital Markets Supervisory Agency. Centralized market supervision should be the rule in all developing and transition countries that have nascent sub-national debt markets.

122. As the regulatory and supervisory framework for the sub-national bond market gains strength and as the market reaches a certain volume of transactions, the authorities may consider supplementing centralized supervision by self-regulation among market participants. One option is to establish a self-regulatory body such as the Municipal Securities Rule Making Board (MSRB) that regulates the municipal bond market in the US. This self-regulating entity is comprised of representatives from the municipal bond industry, public citizens and government agency representatives. It provides guidelines for the preparation, sale, disclosure and secondary trading of municipal bonds. Another non-government association, the Government Accounting Standards Board (GASB), promulgate accounting standards, including for local governments. However, neither the MSRB nor the GASB have the legal authority to mandate changes in the management of the municipal bond market. This remains the authority of the Securities and Exchange Commission. Another option is to delegate self-regulatory activities to other players in the market, such as commercial banks or trust organizations.

Chapter 3: The dynamic relationships between key market players and instruments for credit enhancement and credit pooling

123. The emergence of a vibrant and diversified sub-national bond market is conditioned by the interaction of a broad range of market players and instruments for credit enhancement and pooling.

- *Bond issuers*

124. Bond issuers provide the foundation for the emergence of a diversified market. To issue a creditworthy security, sub-national entities in developing and transition countries need to overcome a number of constraints. First, as discussed in Part I, sub-national

entities need to face a hard budget constraint in order to have an incentive to disclose their true financial situation to the market and to repay their debts. Second, local governments that are too small to undertake projects at an economically viable scale must have the capacity to form inter-municipal undertakings, such as special purpose districts, inter-municipal companies, and municipalities associations with a legal authority to borrow, and with legal access to dedicated revenues and assets from participating entities. These inter-municipal undertakings can become important market players in countries where political amalgamation among small municipalities is not politically feasible. Third, since a large and growing portion of local service and infrastructures are managed by municipal companies, local governments must have the capacity to regulate and supervise private sector participation in these companies, so that they too can become active market players.

- *Financial advisers, bond counsel and underwriters*

125. Financial advisers can play a key role in helping sub-national entities to access the market, in particular in the case of new issuers. Financial advisers may play an important role not only in preparing the bond transaction at hand, but also in developing the issuers' accounting, budgeting, debt management, cash management, and other policies that seek to improve the creditworthiness of the issuer over time. In developing the relation between a sub-national entity and a financial adviser, a key issue is to ensure that the financial advisor does not have a conflict of interest in the sale of the bonds and is interested in the long-term financial health of the issuer. A conflict of interest in the bond sale arises when the advisor to the issuer selling the bonds is the same entity that sells the bonds to investors. In the US bond market, underwriters or investment banks can play both roles on the market and so understand the needs of both the sub-nationals and the investor community, but the same underwriter or investment bank should not play both roles with respect to the same issue. The role of the financial adviser is particularly important when bonds are issued through a competitive bidding process. In this case, the advisor assists the sub-national in structuring the issue, and in establishing and maintaining a relationship with rating agencies. The role of the financial advisor is more limited in the case of a negotiated sale. In this case, which is most frequent in developing and transition countries, the underwriter will be involved much earlier in the process and will play a role in advising on the structure of the bond and communicating with rating agencies.

126. Bond counsel plays a central role in the bond issuance process, as it is responsible for issuing the legal opinion that must accompany each bond issue (see above). Bond counsel must ascertain the issuer's authority to issue bonds and to raise taxes or fees, to attach collateral, and the legality of the security offered. Bond counsel is also responsible for the preparation of the legal covenants associated with the issue. These covenants are critical in particular to define what actions will be taken in case of financial distress on the part of the issuer.

127. Underwriters play a varying role depending on the type of sale. In the case of competitive sales, the leading role in structuring the issue is performed by financial advisers. In the case of negotiated sales, underwriters intervene upstream in the process

and play a key role in structuring and pricing the issue. In most developing and transition countries, competitive bidding procedures for selling bonds are not well developed, and most bond issues are through negotiated sales. Negotiated sales optimize the issuers' ability to take advantage of rapidly changing market conditions. Negotiated sales are also particularly appropriate when issues involve complex security provisions. They may also be beneficial to a new issuer because it allows the underwriter to make pre-sale marketing efforts to investors on the issuer's behalf.

- *Credit rating*

128. For sub-national entities in developing and transition countries, obtaining a credit rating is often critical to place the issue with investors. In most countries, obtaining an international credit rating is required by law in order to issue a bond on the international market. On domestic markets, regulations regarding ratings vary across countries. In Colombia, for example, ratings are required for regulatory purposes, while in Argentina ratings are voluntary and used as a disclosure gesture to inform investors about the financial condition of the sub-national issuer. In Hungary, ratings are required for public issues, but not for private placements on the domestic market. However, in most countries, institutional investors such as pension funds and insurance companies have strict portfolio management policies that limit their investments to securities that have received an international or a domestic credit rating. In addition to determining the interest rate issuers pay to issue bonds, ratings can expand the number of investors available to purchase an issuer's debt, as they give investors an understanding of the risks associated with the securities being offered. They can also make debt more attractive to a wide range of investors, both domestic and foreign. The credit rating process may also influence local government policies directly, as officials may avoid certain policies that might lower the city's credit rating in the future.

- *Credit enhancement*

129. Since the early eighties, municipal bond markets have seen the emergence of various forms of internal and external credit enhancement.

130. Refunded bonds are bonds that were originally issued as general obligation or revenue bonds, but are subsequently collateralized either by direct obligations guaranteed by the central government or by other types of securities. The maturity schedules of the securities in the escrow fund are structured so as to pay when due bond principal, interest, and premium payments (if any) of the refunded bond. A pure escrow consists of securities that are solely direct or guaranteed obligations of the central government. A mixed escrow may consist of other types of securities, such as certificates of deposits from banks, other municipal bonds, or annuity policies from insurance companies.

131. Bond insurance can play a major role in deepening the market for sub-national debt issues in developing and transition countries, although it remains relatively unknown outside the US market. Bond insurance can be particularly important for large bond issuers or less than high quality bond issuers who need to raise money in weak market environments. It can be particularly attractive for lower-quality bonds, bonds issued by

smaller local government units not widely known in the financial community, bonds that have a sound though complex security structure, and bonds issued by infrequent local government borrowers that do not have a general following among investors. For these issuers, the improvement in marketability is so great that it provides a net interest cost saving to the issuer or provides access to the market that more than justifies the cost of the insurance premium. It should be noted, however, that since yield differentials between credit quality rating categories are important to cost savings, and since such differentials vary with the level of interest rates, there may be periods when interest rates are too low for an issuer to use bond insurance. An other limitation on the recourse to bond insurance is the reduced financial advantage of early redemption for an insured bond. The issuer must therefore weight the reduced call option against the reduced interest rate on the insured bond issue (see Feldstein and Fabozzi 1987, op. cit.).

132. Over the past two decades, bond insurance has been supplemented by other forms of credit enhancements provided by banks. These credit enhancements can take the form of letters of credit, irrevocable line of credit, revolving line of credit, or bond purchase agreement. In the latter case, the agreement may be conditional, for example limited to backing a put option. These kinds of third party guarantees can be purchased from banks in a large number of transition countries. In addition, a growing number of international companies that provide credit guarantees have been created by private investors and international financial institutions, and are open to providing guarantees for bond issuance by sub-national entities.

- *Bond pooling*

133. Despite the development of bond insurance and other forms of credit enhancement, market access remains limited for local governments with poor credit ratings, limited credit experience, or to small issues. Since the early seventies, state bond bank initiatives have emerged in the US as a possible way to address this problem. State bond banks review local applications until sufficient credit demands have been made to warrant a bond issue. A bond bank is a conduit finance institution that issues a bond on the market equal to the sum of the individual issues plus a reserve fund and uses the proceeds to purchase the bond issued by participating localities. The primary security for the bank issue is the locality's pledge to repay principal and interest on its share of the debt issued, which can take the form of a full faith general obligation or of a dedicated revenue pledge.

134. Although most bond banks are self-supporting operations which do not receive direct state appropriations or the state's full faith and credit backing, many are secured by a moral obligation. In the event of a draw-down of the credit reserve, the state may opt to replenish the deficiency. The nature of the moral obligation pledge varies across states. In some cases, the pledge is weak, and is interpreted by counsel as an authorization, not an obligation, for the state to intervene to replenish the reserve fund. In other states, the pledge is strong, and is interpreted by counsel as a commitment of full faith and credit of the state to replenish the reserve in case of default. Additional security may be provided by giving the bond bank the right to intercept of state transfers to the locality in default.

Because of this moral obligation pledges, credit agencies consider that the state is the ultimate source of debt repayment for bond bank issues.

135. Despite their success in expanding market access to small issuers or to issuers with a limited credit history in the US, bond banks suffer from several limitations. First, since the bank acts as a conduit for local issuers to access national credit markets, a permanent funding pool is not created. Second, the issuance of a moral obligation pledge by the state and/or the establishment of an intercept right may create the expectation of a bailout by the state and could therefore become a channel of moral hazard in the local government finance system.

Chapter 4: Priorities for strengthening sub-national bond market architecture in developing and transition countries

136. Building on the fundamental policy foundations outlined in Part I, governments in developing and transition countries can then focus on developing the legal and institutional architecture for the sub-national bond market. In developing this architecture, they should focus on three critical priorities: (i) encouraging synergies between the various components of the domestic bond market; (ii) developing and/or strengthening the regulatory and supervisory framework for the market; and (iii) maintaining a level playing field among market instruments and market participants.

- *Encouraging synergies between various components of the domestic bond market and within the sub-national debt market itself*

137. Encouraging synergies between various components of the domestic bond market and within the sub-national bond market itself constitutes the first priority in the development of the financial architecture for sub-national bond markets in developing and transition countries.

138. While developing the sovereign bond market is rightly seen as key to establish a benchmark for the sub-national bond market, this relationship tends to become less important as both sub-national and corporate debt markets develop in relation to sovereign debt markets. As this occurs, two fundamental forces drive market development. First, within the sub-national bond market itself, debt issuance by highly-rated borrowers increasingly drives the development of the market, and plays a critical role in setting the reference yield curve. Second, competition between corporate and sub-national debt issuers for scarce investors resources drives the structure of the yield curve for various market segments and powers market deepening and diversification.

139. Beyond developing the sovereign benchmark for the market, the key priority is to establish and to adopt and maintain a neutral policy stance with respect to market access by sub-national borrowers and with respect to competition between various non-sovereign issuers. The cornerstone of this policy is to maintain a strict policy of no

sovereign guarantee for sub-national issues (see part I). This provides the basis for the establishment of a yield curve for sub-national issues, and also for the development of free and undistorted competition between corporate and sub-national issues.

- *Developing and/or strengthening the regulatory and supervisory framework for the market*

140. The second priority in developing the architecture for the sub-national bond market in developing and transition countries is to establish and/or strengthen the regulatory and supervisory framework.

141. As sub-national entities compete directly with corporate issuers for scarce investors resources, the overall regulatory framework for sub-national bond issues should be as a matter of principle be identical to the one applying for corporate issues. However, as an integral part of bond market reform programs, governments should place a particular attention to specific elements of the regulatory and supervisory framework which may require special treatment to account for specific characteristics of sub-national issuers. Of particular importance is establishing specific formats for disclosure of financial information by sub-national entities in case of public issues, and regularly revising these formats in line with the evolution of the local government accounting framework.

142. In addition to establishing the overall regulatory framework for the sub-national bond market, a key priority is to establish specific regulations to support market diversification, increase investors' confidence, and foster the development of a secondary market in sub-national bonds. Of particular importance are regulations requiring a legal opinion before issuing a sub-national bond, regulations supporting the development of structured sub-national bond issues (in particular pertaining to revenue and asset collateralization), regulations supporting the issuance of bonds by inter-municipal undertakings, regulations giving institutional investors freedom to invest across a broad range of instruments, including sub-national bonds, and a tax regime that does not distort investors' choices among various classes of securities.

- *Maintaining a level playing field among market instruments and participants*

143. The third priority for developing the architecture of the sub-national bond market is to establish and maintain a level playing field among market instruments and participants.

144. First, governments should establish a legal and regulatory framework that supports the development of a wide range of sub-national debt instruments, both bank lending and directly placed debt. As empirical evidence across many developing and transition countries shows, bank lending plays a central role for sub-national borrowers in the middle of the rating scale. As their credit record grows, and reputation effects eliminate the need for delegated monitoring, sub-national borrowers diversify their financing strategies and seek to place debt directly on the market. The development of bank lending to sub-national entities and of the sub-national bond market are therefore closely intertwined. For these reasons, governments should avoid introducing distortions in the

system of incentives between sub-national loans and bonds. This means avoiding the introduction of fiscal and/or regulatory privileges that favor one type of instrument over the other, less it results in a loss of financial and possibly economic efficiency, and in increased volatility in yields in the case of exemption from income tax on municipal bonds (see above).Within the market for directly-placed debt, government should avoid introducing distortions between different types of sub-national bond instruments. For example, they should avoid distorting the choice between general obligation bonds and revenue bonds through differential income tax treatment and/or through the absence of a regulatory framework making it possible to design various types of structured bond instruments.

145. Second, governments should avoid introducing fiscal, regulatory or other forms of support that distort the competition among various actors on the sub-national bond market. In particular, they should be very careful when providing sovereign support to specific market participants, less they distort the development of normal competitive relationship among these actors and among various segments of the sub-national debt market. Specifically, support mechanisms such as partial risks or partial credit guarantees provided to sub-national bond issuers must be properly priced, and transparent accounting for these guarantees introduced in the issuing entities budgets.

Part III: Implications for the design of country assistance strategies

146. This Part examines the implications of the above analysis for the design of assistance strategies by the World Bank Group. Chapter 1 examines assistance strategies in pre-market conditions. Chapter 2 examines assistance strategies in emerging sub-national debt markets.

Chapter 1: Support strategy in pre-market conditions

147. In a number of developing and transition countries, the basic conditions for the development of an orderly and efficient sub-national debt market do not exist. In these countries, market development is hampered by widespread moral hazard, weak market governance, poor market transparency, widespread distortions in market competition, and poor financial management capacity by sub-national entities.

148. Under these conditions, IBRD should refrain from lending to sub-national governments, either directly or indirectly through government credit lines or through financial intermediaries, and should instead focus its resources in two areas. First, to help governments establishing the policy pre-requisites for sub-national debt market development, through policy analysis and advice and support to capacity building, both at the central and local government levels. Second, to finance specific sub-national projects strictly on a non-recourse basis.

149. Policy analysis and advice for sub-national debt market development can take many forms, from formal analysis to hands-on advice for the design of specific pieces of legislation, and should be envisaged as an integral part of IBRD's support to financial sector development in the country. Support to capacity building should focus on two key priorities. First, technical assistance to strengthen the capacity of central governments to design and implement reforms of the legal, regulatory, and supervisory framework for the market. And second, technical assistance to strengthen the capacity of local governments in the areas of accounting, budgeting, financial management, and development of institutional and regulatory frameworks to support private participation in local infrastructure and services.

150. In countries where the government shows a clear commitment to market development, IBRD could support reforms aimed at establishing the fundamental policy framework required for the development of the market through carefully designed policy-based operations. These policy-based operations should be based on strict policy conditionality focusing on the establishment of hard budget constraints for sub-national entities across the fiscal decentralization, public debt, and financial sector channels. Failing such conditionality, policy-based operations providing counterpart funding for sub-national budgets should be avoided, since they would contribute to softening the budget constraint at the sub-national level and would fuel, rather than reduce, moral hazard in the system.

Chapter 2: Support strategy in emerging sub-national debt markets

151. Several countries are taking steps to create the minimum conditions for the emergence of a sub-national debt market as part of the development of the financial sector, through tightening budget constraints for sub-national entities, developing the legal, regulatory and institutional framework for market governance and transparency, and implementing a prudential framework for sub-national borrowing.

152. In these conditions, the Bank Group should continue to place a major emphasis on further strengthening of the legal and regulatory framework for the market, and on providing support for building local capacity in the areas of accounting, budgeting and financial management, including the introduction of advanced asset-liability management techniques. At the same time, the Bank Group should also offer a wide range of lending and guarantee instruments with the objective to enhance private finance for investments by sub-national entities. The specific lending and guarantee products offered by the Bank Group will need to be carefully selected in order to ensure that these products do not displace private sector financing for sub-national investments, and in the case of IBRD products do not introduce moral hazard in the market through the sovereign guarantee requirement.

153. First, IFC could consider *capital market transactions* together with private investors. These transactions could take several forms:

- *Equity participation in, and/or line of credit to, private or semi-private financial intermediaries specializing in sub-national investment finance or to local infrastructure finance funds.* International and/or local strategic investors could establish a new intermediary or fund, or invest in an existing intermediary or fund, that would provide a range of recourse and non-recourse financing products to sub-national entities, in the form of loans, bond underwritings, sub-sovereign guarantees, and/or hedging products, without sovereign guarantee or counter-guarantee. A specialized private institution could manage the intermediary or fund through a management contract. The government could take a minority participation in the intermediary or fund. IFC would participate in the transaction in the form of a minority equity stake, subordinated finance, and/or through a line of credit

- *MDF privatization transaction.* In this transaction, private international and/or local strategic investors would take a controlling equity stake in an MDF, as part of its privatization. As in the previous case, a private institution could manage the fund through a management contract. IFC could participate in the transaction in the form of a minority equity stake, subordinated finance, and/or a line of credit.

154. In conjunction with these transactions, or as a separate operation, IBRD could consider *partial risk or partial credit guarantees* extended to private or semi-private financial sector intermediaries or infrastructure funds on the sub-national finance market. Such a guarantee would need to be designed very carefully in order to avoid reintroducing moral hazard through the sovereign counter-guarantee. One way to approach this issue would be to issue a partial guarantee against non-repayment of defined portion of the loans made by private intermediaries to sub-national entities, on the condition that the parties to the transaction explicitly renounce any claim on the sovereign in case of a default by the sub-national. Such an instrument would replace an open-ended, implicit guarantee of sub-national debts by the sovereign through a limited, explicit guarantee of such debts.

155. IBRD could also consider a *line of credit to private or semi-private intermediaries specializing in local investment finance or to local infrastructure finance funds,* that is on-lent to sub-national entities to finance their investments. As in the previous case, this instrument would need to be carefully designed in order to avoid introducing moral hazard in the system, and would need to be conditioned upon strictly limiting moral hazard and leveling the playing field in the market. In addition, the guarantee of the sovereign would need to be correctly priced and its cost passed on to the sub-national borrowers.

156. Finally, IBRD could consider a *line of credit to a MDF.* However, such an instrument should be envisaged only under the condition that the government agrees to gradually phase out the protective framework surrounding MDF operations, and under the condition that the MDF agrees to a time-bound plan to increase the participation of the private sector in the fund, including through management contracts with specialized institutions, equity participation by private strategic investors, and increased reliance on domestic debt markets for the financing of the fund.

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